**Claims**

1. A sanding machine having oscillation drive means (3, 4) for setting an abrasive (1) in an oscillating sanding movement, characterized by an activating device (7) having a multiplicity of activating regions (8) triggered in such a way that various regions of the abrasive (1) are alternately activated independently of the oscillating sanding movement.

2. The sanding machine as claimed in claim 1, characterized in that the activating regions (8) are brought into use asynchronously relative to the oscillating sanding movement.

3. The sanding machine as claimed in either of the preceding claims, characterized in that the activating device (7) can be moved transversely to the feed direction (V) of the workpiece (6) to be sanded.

4. The sanding machine as claimed in one of the preceding claims, characterized in that the activating regions (8) of the activating device (7) are raised lamellae arranged on a carrier (11).

5. The sanding machine as claimed in claim 4, characterized in that the carrier (11) is a plate which can be moved in a reciprocating manner in the sanding plane transversely to the feed direction (V) of the workpiece (6).

6. The sanding machine as claimed in claim 4, characterized in that the carrier (11) has endless conveying means revolving transversely to the feed direction (V) of the workpiece (6).

7. The sanding machine as claimed in one of the preceding claims, characterized in that the activating regions (8) extend in the form of raised lamellae on the sanding plane diagonally, in a V shape, in a W shape, in a curved manner or so as to be offset one behind the other.

8. The sanding machine as claimed in one of the preceding claims, characterized in that a pressure device having at least one pressure shoe which can be triggered is arranged between the activating regions (8) of the activating device (7) and the abrasive (1).

9. The sanding machine as claimed in one of the preceding claims, wherein the abrasive (1) is mounted on a retaining device (2) and the retaining device (2) is mounted with the oscillation drive means (3, 4) on a sanding machine frame (5) in order to set the retaining device (2), relative to the sanding machine frame (5), in a sanding movement oscillating parallel to the sanding plane, which is defined by the sanding surface of the abrasive (1), characterized in that the activating device (7) is coupled to the sanding machine frame (5) and is uncoupled from the retaining device (2) at least in one direction of the sanding plane.

10. The sanding machine as claimed in one of the preceding claims, characterized in that a plurality of activating devices (7) are arranged one behind the other in the feed direction (V).

11. The sanding machine as claimed in claim 9 or 10, characterized in that the oscillation drive means (3, 4) have rotatably driven eccentric shafts (3a, 3b) which extend vertically to the sanding plane between the sanding machine frame (5) and the retaining device (2).

12. The sanding machine as claimed in claim 11, characterized in that at least one of the eccentric shafts (3a, 3b) is displaceably mounted in one direction of the sanding plane.

13. The sanding machine as claimed in one of the preceding claims, characterized in that the abrasive (1) is a sanding sheet interchangeably connected to the retaining device (2).

14. The sanding machine as claimed in one of claims 1 to 8, characterized in that the activating device (7) has flexible conduits (18) for receiving a medium, and pressure control means are connected to the conduits (18), medium located in the conduits (18) being pressurized in a pulsating manner by the pressure control means.

15. The sanding machine as claimed in one of the preceding claims, characterized in that the abrasive (1) is a revolving endless sanding belt.

16. A method of sanding a workpiece using a sanding machine as claimed in one of the preceding claims by oscillating sanding movements, characterized by alternate activation of various activating regions (8) of the abrasive (1) independently of the oscillating sanding movement.